

## XP-002100428

- 1/1 - (C) WPI / DERWENT  
AN - 77-87204Y ç25!  
PR - JP760044646 760419  
TI - Deodorising waste gas by contacting with foamed soln. -  
contg. e.g. ferric salt and aq. alkaline surfactant  
soln.  
IW - DEODORISE WASTE GAS CONTACT FOAM SOLUTION CONTAIN  
FERRIC SALT AQUEOUS ALKALINE SURFACTANT SOLUTION  
PA - (WAKI-I) WAKI H  
PN - JP52127487 A 771026 DW7749 000pp  
ORD - 1977-10-26  
IC - B01D53/34  
FS - CPI  
DC - E36 J01  
AB - J52127487 Waste gas is deodorised by contacting with a  
foamed soln. contg.  $\dot{u}=1$  of (a) ferric salt (I) and  
alkaline aq. soln. of surface active agent (II), (b)  
(I) and neutral aq. soln. of surface active agent  
(III), (c) (I), (II) and water soluble oxidising agent  
(IV), (d) (I), (III) and (IV), (e) (I); chelating agent  
(V) and (II), (f) (I), (V) and (III), (g) (I), (V),  
(II) and (IV), (H) (I), (V), (III) and (IV). The  
ferric salt is  $\text{Fe}_2(\text{SO}_4)_3$ ,  $\text{FeCl}_3$ ,  $\text{Fe}(\text{NO}_3)_3$ , or  
 $\text{Fe}(\text{ClO}_4)_3$ .  
- Pref. chelating agent is EDTA sodium citrate,  
acetylacetone etc. Pref. concn. of ferric salt and  
chelating agent are 0.1-5 wt.%. Pref. water soluble  
oxidising agent is  $\text{H}_2\text{O}_2$ , persulphuric acid, peracetic  
acid,  $\text{HClO}$  etc. and preferred concn. thereof is  
0.05-0.2 wt.%. Preferred alkali is  $\text{NaOH}$ ,  $\text{KOH}$ ,  $\text{Na}_2\text{O}_2$ ,  
 $\text{NH}_3$ , etc.  
- Foul smelling components in waste gas, partic.  $\text{H}_2\text{S}$ , are  
effectively removed without reducing the efficiency  
even when components which consumes alkaline materials  
such as  $\text{CO}_2$ , are present in the waste gas. Sol of  
 $\text{Fe}(\text{OH})_3$  which is formed in the presence of the surface  
active agent is maintained in the satisfactorily  
dispersed state assuring large surface area of the sol.  
When a chelating agent is used in combination,  $\text{Fe}^{+++}$   
ions are masked by the chelating agent.  $\text{Fe}(\text{OH})_3$  sol.  
is not formed, even under an alkaline condition.  
Therefore, powders of sulphur liberated from  $\text{H}_2\text{S}$  are  
recovered in the pure form by filtration, and the  
consumption of Fe catalyst is small.